

Ronald D. Rothchild, Sc.D.  
33 Laurie Boulevard • Bethpage, NY 11714  
voice (516) 935-2673 • fax (516) 827-5176

SCULLY, SCOTT,  
MURPHY & PRESSER

9 March 2000

2000 MAR 15 A 10:05

RECEIVED



Thomas Spinelli  
Scully, Scott, Murphy & Presser  
400 Garden City Plaza  
Garden City, NY 11530-0299

Dear Mr. Spinelli:

As promised, I have now reviewed your proposed OmniTek patent application. Unfortunately I am not able to sign it in its present condition, for three reasons:

1. As I suspected and mentioned when we spoke on the telephone last week, a thorough reading of the claims has now confirmed that I am the sole inventor of whatever might be patentable here. See details below.

In addition;

2. This application would seek to patent a body of public-domain engineering know-how, including but not limited to my own know-how. Toward that end, the specification and Figure 19 provide an incorrect representation of prior art. The misleading characterization is followed by more accurate descriptions of prior art in the broadest claims.
3. Quoting from the declaration; "I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability..." I was unable to find a single specific disclosure or citation of relevant prior art in the entire application, which is remarkable in a well trod field like vibration control. My signature on the declaration would be fraudulent as the application fails to disclose material information which was and is known to me as well as to OmniTek's owners who are representing themselves as joint inventors.

Regarding my role as sole inventor here, you mentioned in our conversation that you had not seen any of the early documentation related to the origin of the material on which this application is based. I refer you to the following:

- The OmniTek proposal which I wrote in response to SBIR topic No. AF98-095 was entitled "Semi-Active Isolation of Launch Vehicle Payloads with Very Low Transmissibility". This proposal was submitted in January 1998 and describes key characteristics of the support means to be used for isolation.

- My resume on page 21 of the proposal cites my earlier work as a consultant in relation to energy absorbing shoe sole materials. These are described in a series of patents issued to Eli Cohen of Paramus, NJ, my client, about a decade before the OmniTek work.
- In my hardbound logbook at OmniTek, record of my 20 November 1997 call to Eli Cohen to obtain samples of the shoe sole material for use in OmniTek's isolation system development; the first of several such calls. Records were kept, but not any formal "disclosure", because it was (and is) my belief that the use of this material (or a derivative) does not constitute an "invention".
- In an entry dated 17 March 1998; witnessed disclosure of the parallelogram linkage system and discussion of its kinematics. All of the vast numbers of possible variations based on these kinematics are obvious following this disclosure.
- On 31 March, 3 April and 17 June, record of discussions leading to purchase of isolation mounts from Barry Controls, with the same kind of buckling geometry as the Cohen sole material. Demonstrably, the concept is well known in prior art and variations range from arches to complete circular sections, to long tubes, to arrays of tubes in a mat.
- On 21 August 1998, analysis and record of my use of Cohen's shoe sole material (along with compressible foam material) in a laboratory prototype of the support means at OmniTek.
- Of the informal drawings in your patent application, Figures 1 through 4a, 5, and 7 through 15, still bear my handwriting in their legends. Moreover Figures 4a, 5, 7, 12, 14 and 15 are entirely my hand drawings (the others being computer generated at my instruction, with my handwritten legend added afterward).

Regarding my claim-by-claim analysis of the disclosed "invention":

- Claim 1 is a functional description of much of the prior art, and in particular of the system the development was intended to replace. Again, it is noted that a) the description of prior art provided in the specification and in Figure 19 is an incorrect representation, and b) none of the material prior art is cited in the specification, as called for in the Declaration.
- Claim 2 narrows the motion control to a mechanical linkage but still describes many prior art systems, including many automobile and seismic suspensions. For a discussion of the use of combinations of four-bar linkages to constrain motion you may refer to "Analysis and Design of Mechanisms" by D. Lent, 1961, among others.
- Claim 3, if it is an invention, is mine; refer to my 17 March 1998 witnessed disclosure in hardbound logbook.
- Claims 4, 5, 8, 9, 10, 11, 14, 15, 19, 20, 21, 23, 24, 25, 27 through 42, and 46 through 49, mostly obvious variations, are my invention to the extent that they are an invention at all.

Refer again to my 17/3/98 disclosure for a description of the linkage kinematics.

Claim 24 is a general, functional description of the pneumatic level control system that I designed for the occasion. It was a nice design; I do not and never did represent it as novel for patent purposes.

Claim 25 refers to the means of accommodating the varying acceleration rate of a climbing rocket. It was a straightforward design in response to a requirement, but to the extent that it is an "invention" it is mine.

Claims 28 through 31, and 37, are design variations that are obvious, in view of the kinematics disclosed on 17/3/98. If "inventions", they are mine.

Claims 14 and 40 and 42 relate to use of the Cohen concept in a particular application, specifically isolation. If that is an "invention", it is mine.

- Claims 6, 7 and 26 describe the addition of actuators and damping, which are common features of vibration control systems so their addition would constitute routine design decisions rather than inventions.
- Claims 12 and 13 are obvious restrictions narrowing the scope of Claim 1.
- Claims 17 and 44 are not only obvious, they read on the laboratory prototype "support means" that I designed and constructed (see logbook entry). They are further anticipated in the textbook "Mechanical Vibrations" by Den Hartog, published in 1962, which indicates that "Sometimes, however, rubber or cork padding is used for this purpose..." (as opposed to common springs).
- Claims 16, 18, 22, 43 and 45 describe additional examples among the infinity of possible, obvious variations on the Cohen sole material concept.

It is clear that there is no basis for my declaration as anything but sole inventor. Your clients should not confuse this with ownership of whatever patent might eventually issue on my work at OmniTek, which is not at issue.

Finally, regarding the legal obligation to disclose material art, I offer the following examples of art which must be disclosed in order to comply with requirements of the Declaration:

\*       U.S. Patents     4,754,559  
                               4,753,021  
                               4,611,412  
                               4,536,974

- \*       Commercial communication relating to common products in the public domain, such as Enidine, Inc. description in Thomas Register:  
           "Air springs provide shock isolation & actuation to a variety of industrial applications. Provide an economical solution for actuation & low-frequency vibration control."

- \* Papers published by people from Honeywell and others, relating to systems developed for payload isolation on satellite launch vehicles.

It may be arguable, in the abstract, whether any particular piece of art is "material to patentability". However this is not an abstract situation in which possibly-material art is discovered separate from the development. The development leading to OmniTek's application was actually based on and incorporated aspects of the art cited above, so it is clearly material and its omission violates the Declaration.

I told your clients more than two years ago, when I first proposed the concept and then developed working designs based on it, that I did not believe the concept was patentable except possibly in some narrow embodiment. Toward that end I documented the linkage carefully, in consideration that its application in this context might be considered patentable even though there is nothing implicitly new about the linkage or its variations. Of course your clients have every right to apply for coverage of whatever breadth they may be able to obtain, but I do not agree to withhold relevant art in the process.

Particularly in view of the gaping inadequacies and inaccuracies of the subject application, your attempt (and your client's attempt) to pressure me to sign immediately without reading the material was highly inappropriate. As a result of the application's problems, and in order to clearly honor my obligation to OmniTek, I have devoted more than a reasonable amount of my own scarce time to your client's patent issue. I will certainly not consent in the future to sign anything related to OmniTek without reading it extremely carefully, and will not take the time to do that without compensation.

In the past, my rate for consultation on patent matters has been \$150/hour. If you should want me to look at anything further from OmniTek, I will require a retainer of \$1,200 in advance. In addition, please convey your assurance in writing that no application pertaining to this material will be filed without my signed declaration.

Yours truly,

